

State & Federal Energy Storage Technology Advancement Partnership (ESTAP)

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Thank You:

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Office of Electricity Delivery and
Energy Reliability

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Sandia National Laboratories



ESTAP is a project of CESA

Clean Energy States Alliance (CESA) is a non-profit organization providing a forum for states to work together to implement effective clean energy policies & programs:

- Information Exchange
- Partnership Development
- Joint Projects (National RPS Collaborative, Interstate Turbine Advisory Council)
- Clean Energy Program Design & Evaluations
- Analysis and Reports

CESA is supported by a coalition of states and public utilities representing the leading U.S. public clean energy programs.



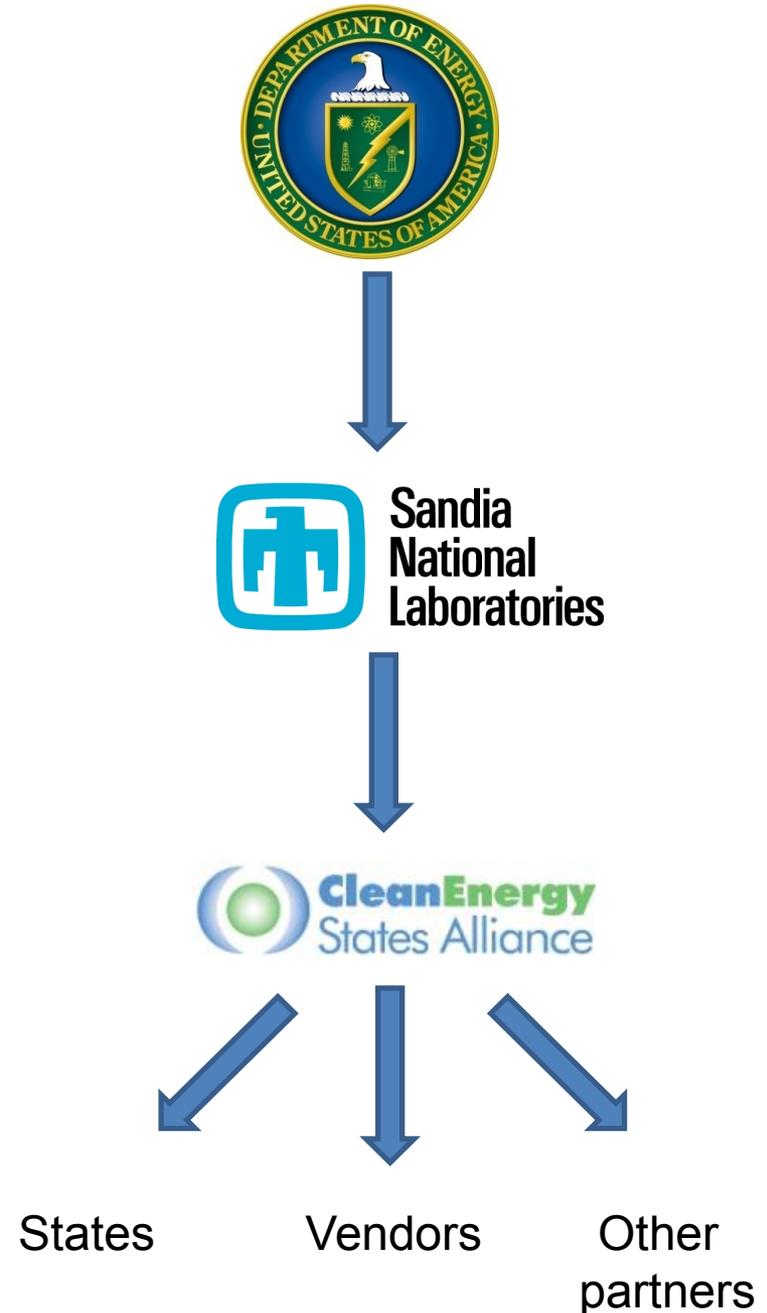
ESTAP* Overview

Purpose: Create new DOE-state energy storage partnerships and advance energy storage, with technical assistance from Sandia National Laboratories

Focus: Distributed electrical energy storage technologies

Outcome: Near-term and ongoing project deployments across the U.S. with co-funding from states, project partners, and DOE

* (Energy Storage Technology Advancement Partnership)



Why work with states?

Surveys Indicate Strong State Interest in Storage

- 75% of states responding “very interested” in collaborating on energy storage technology projects with DOE, especially commercial & demonstration projects.

States Have Resources

- From 1998-2009, state clean energy funds incentivized 70,000 projects – 3 GW of installed capacity – with \$2.7b
- With Renewable Energy Public Benefit Funds alone (18 states & DC), states will spend \$7.8b by 2017

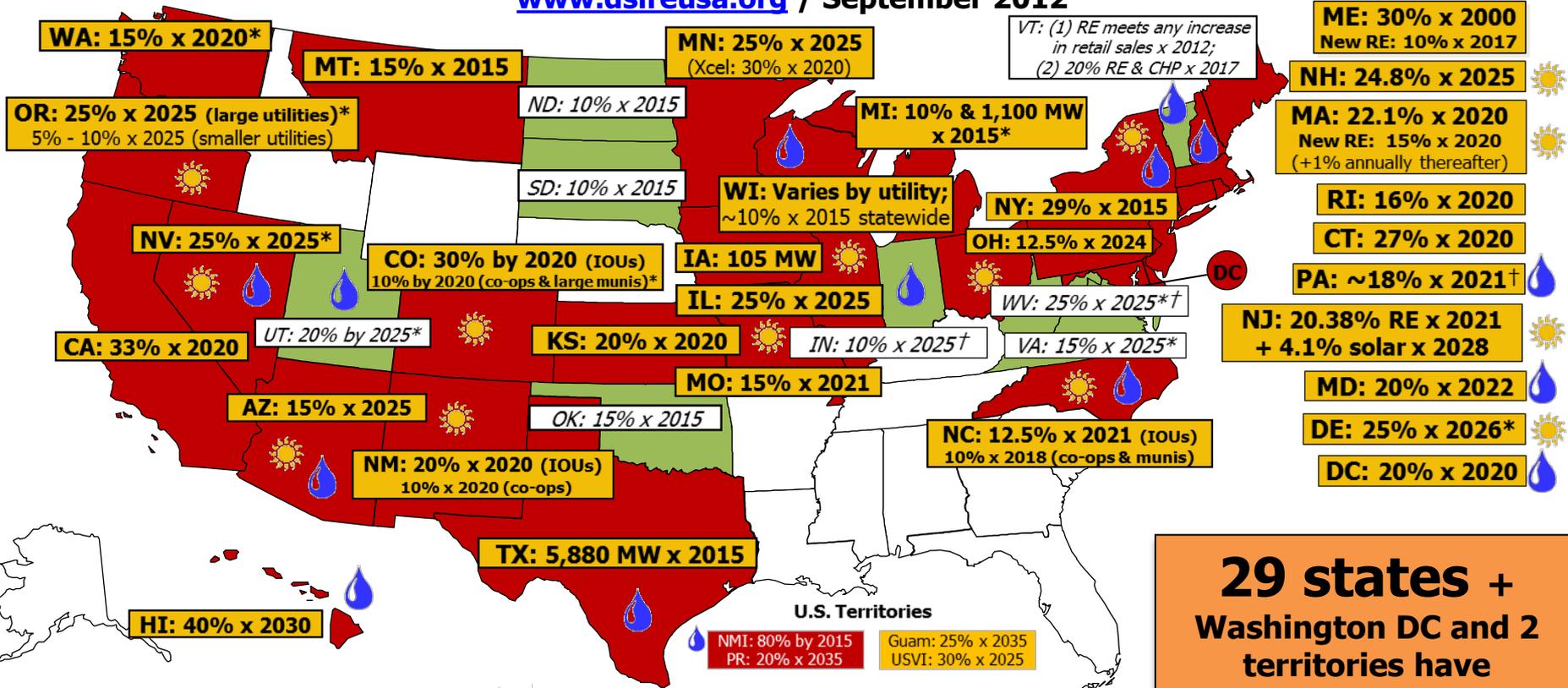
States Are Important Partners

- Many state partners also have jurisdiction over utilities, resource planning, transmission and project siting, etc.
- State-stakeholder partnerships can ignite project ideas and creative funding arrangements



States with Renewable Portfolio Standards

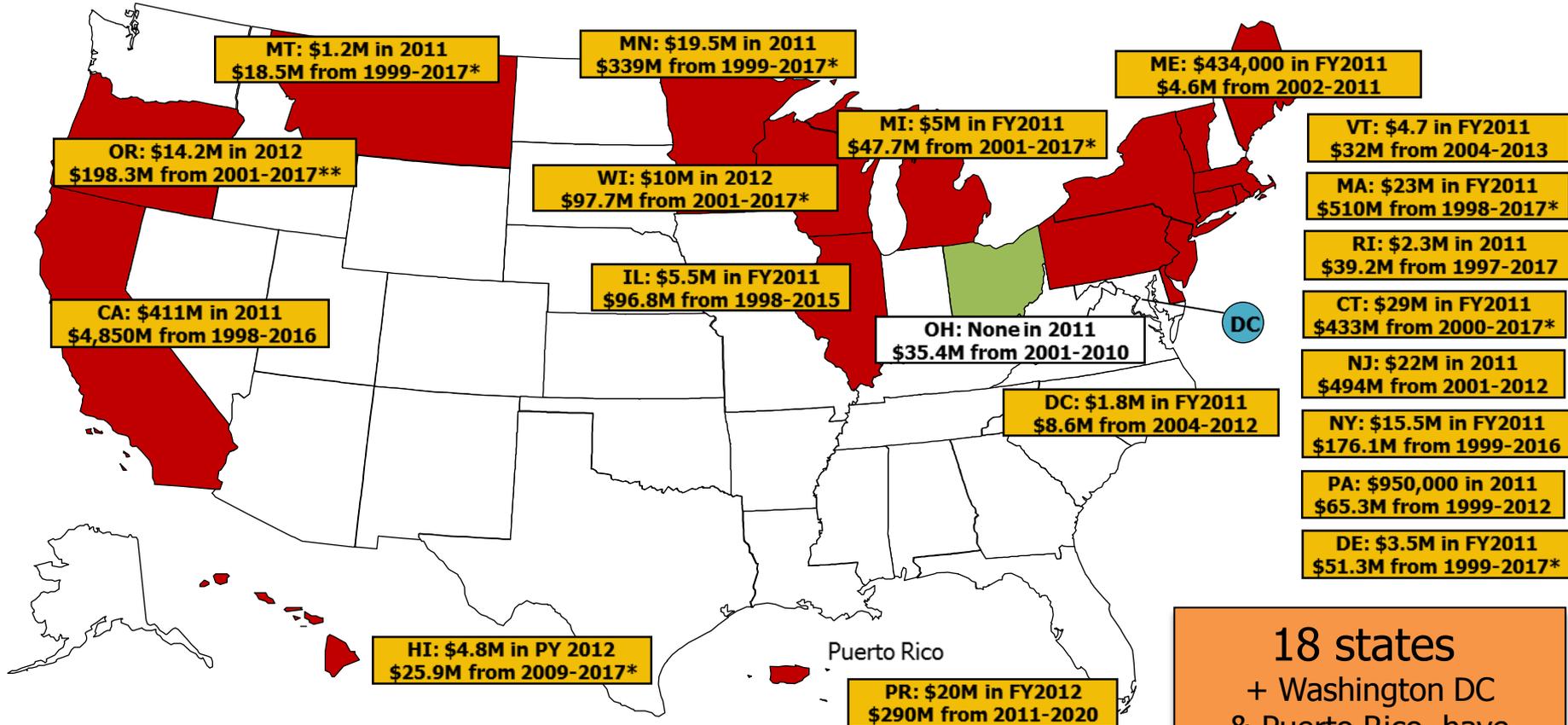
www.dsireusa.org / September 2012



- Renewable portfolio standard
- Renewable portfolio goal
- 💧 Solar water heating eligible
- ☀️ Minimum solar or customer-sited requirement
- † Includes non-renewable alternative resources
- * Extra credit for solar or customer-sited renewables

29 states + Washington DC and 2 territories have Renewable Portfolio Standards
(8 states and 2 territories have renewable portfolio goals)

States with Public Benefits Funds for Renewables



18 states
+ Washington DC & Puerto Rico have public benefits funds (\$7.8 billion by 2017)

■ State PBF With Ongoing Collections ■ State PBF Closed to New Collections

* Fund does not have a specified expiration date
** The Oregon Energy Trust is scheduled to expire in 2025

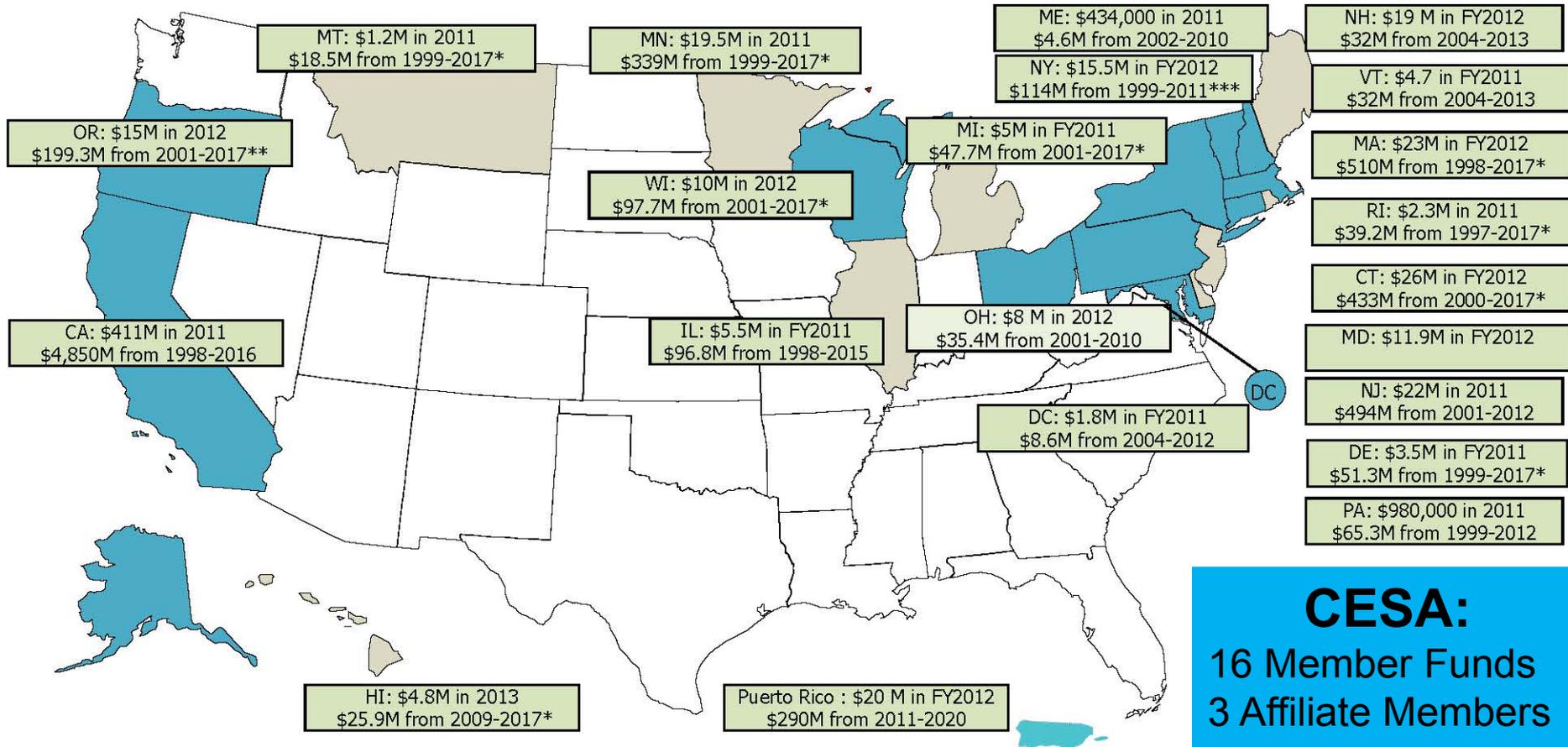
(NOTE: Slides 2-12 explain the methodology for calculating funding estimates.)



CESA Member Renewable Energy Funds

State PBF

www.dsireusa.org /CESA September 2012 (estimated collections)



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*** NY also will fund \$429 M for the CST program/RPS surcharge from 2010-2015 and also about \$191M for Emerging Technologies over the 13-year SBC program.

CESA:
 16 Member Funds
 3 Affiliate Members

ESTAP:
 >500 members



ESTAP Key Activities

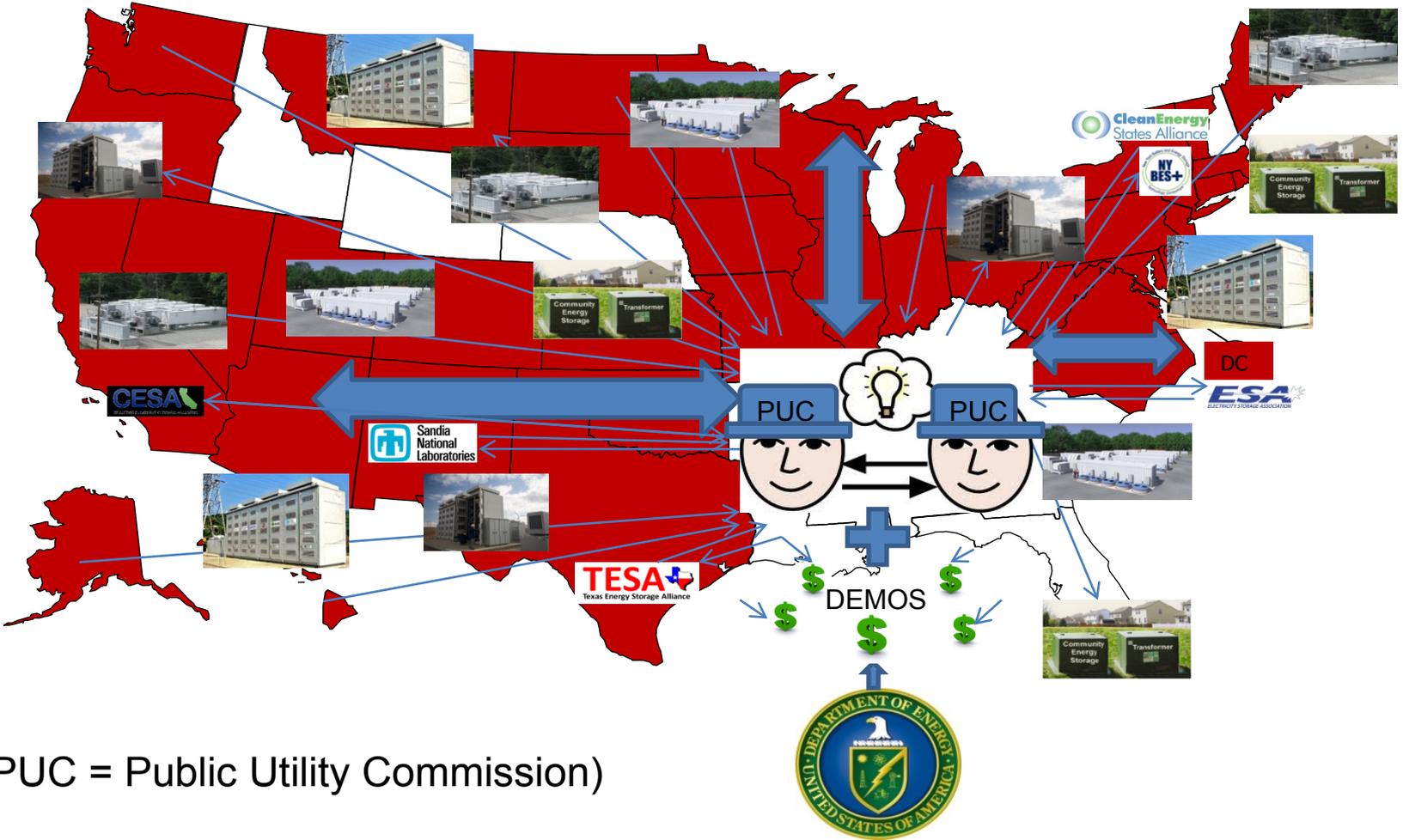
- Disseminate information to stakeholders
 - ESTAP listserv >500 members
 - Webinars, conferences, information updates, surveys
- Facilitate public/private partnerships at state level to support energy storage demonstration project development
 - Match bench-tested energy storage technologies with state hosts for demonstration project deployment
 - DOE/Sandia provide \$ for generic engineering, monitoring and assessment
 - Cost share \$ from states, utilities, foundations, other stakeholders



Goal: To get from Here...



...To Here!



(PUC = Public Utility Commission)



Contact Information

Project website:

www.cleanenergystates.org/projects/energy-storage-technology-advancement-partnership/

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